

**REMARKS**

Claims 1-13 are pending in the present application. New claims 12-13 are herein added. No new matter has been presented.

**Rejections under 35 USC §103(a)**

**Claims 1, 3, 4 and 7-9 were rejected under 35 U.S.C. 103(a) as being obvious over Swiggett et al. (U.S. Patent No. 4,693,778, herein "Swiggett") in view of Hisatsune (JP 61-62575) and optionally in view of Keyworth et al. (U.S. Patent No. 5,534,101 herein "Keyworth") or Ikushima (U.S. Patent No. 6,527,142).**

Applicants respectfully traverse the rejection.

As the Examiner admitted, Swiggett is silent as to how the adhesive layer is applied to the optical fiber, specifically coating the optical fiber with an adhesive while passing the fiber through the nozzle. Swiggett is also silent as to keeping the amount of adhesive constant by controlling pressure for pushing out the adhesive. The Examiner alleged as follows:

Hisatsune discloses a method of applying an adhesive to a wire. The method comprises providing a nozzle (5) with an opening with an inner diameter larger than the outer diameter of the wire (3), feeding a wire (3) through the nozzle and simultaneously ejecting the wire with an adhesive (4) coating from the nozzle. The method further comprises controlling the pressure in the nozzle to push out a constant amount of adhesive using a controller (8).

It would have been obvious . . . to modify the method of Swiggett by applying the adhesive coating to the optical wiring while passing the wiring through the nozzle while controlling the pressure pushing out the adhesive simultaneously with the optical wiring as taught by Hisatsune in order to apply a constant amount of adhesive sufficient to form a bond without wasting excess adhesive.

(Office Action, page 3, lines 8-19).

When a reference under 35 USC §103 is relied upon, it must be analogous prior art (MPEP 2141.01(a)). The MPEP explains as follows:

The examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. \*\*>"Under the correct analysis, any need or problem known in the field of endeavor at the time of the invention and addressed by the patent [or application at issue] can provide a reason for combining the elements in the manner claimed." *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1397 (2007). Thus a reference in a field different from that of applicant's endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his or her invention as a whole.<

(MPEP 2141.01(a) I). The present invention is directed to an **optical fiber wiring** method on a substrate and an optical fiber wiring apparatus.

On the other hand, Hisatsune discloses a method of sticking two plates together with putting a space piece between them, to simplify operation. In order to improve efficiency, Hisatsune places a core coated with an adhesive, which is fed from a nozzle on a given position on the plate, piling the other plate on the core, pasting the plates together (Abstract, PURPOSE). Thus, Hisatsune is in the field of **bonding two plates** together or in the field of **manufacturing a sheet holder** such as a card case.

Hisatsune is a reference in a field significantly different from that of applicant's endeavor. Also, Hisatsune is not reasonably pertinent because the matter with which it deals, logically would NOT have commended itself to the present inventor's attention in considering his or her invention as a whole. Thus, because at least Hisatsune is not analogous prior art, the rejection based on the combination including Hisatsune has not established a prima facie case of obviousness. Also, the Examiner's allegation is nothing but a typical example of an impermissible hindsight analysis.

Keyworth and Ikushima does not make the present invention obvious. Keyworth discloses a method and apparatus for forming a waveguide on a substrate which comprises feeding “a curable **light guide forming liquid**” (not necessarily “a UV curable liquid” as the Examiner alleged) from a nozzle onto a substrate, relatively moving the nozzle and the substrate and curing the UV curable liquid (column 4, lines 1-21). There is no reason why this formation of a waveguide from “a curable light guide forming liquid” is combined with Swiggett’s method and apparatus for applying conductor wiring to a substrate.

Ikushima discloses a method of dispensing a constant amount of liquid from a nozzle. However, there is no reason why Ikushima’s method of dispensing a constant amount of liquid from a nozzle is combined with Swiggett’s method and apparatus for applying conductor wiring to a substrate.

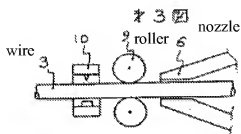
Also, the Examiner’s allegation on Hisatsune was not correct. The examiner alleged as follows:

With regard to claim 7, Hisatsune discloses an apparatus capable of wiring an optical fiber. The apparatus comprises a liquid material ejecting unit (Figure 2) with a nozzle (5) having an inner diameter larger than an outer diameter of an wire (3) and allowing the wire and adhesive (4) coating to be simultaneously fed through the nozzle, **a controller (8) to control air pressure for pushing out the adhesive**. Hisatsune is silent as to a stage for supporting the substrate onto which the wire is applied, wherein the liquid material ejecting unit and stage are movable.

However, in Hisatsune, the controller (8) is directly touching the adhesive (4) in the nozzle device (5). Thus, Hisatsune does not disclose “a controller to control air pressure for pushing out the adhesive.”

Also, Fig. 3 of Hisatsune discloses rollers (9) for ejecting a wire (3) from a nozzle (6). Since Hisatsune discharges a large amount of the adhesive to bond two plates, it can dispose the rollers (9)

in front of the nozzle (6). This architectural difference further makes it clear that the technical field of Hisatsune is different from this invention.



It also should be noted that not only the adhesive but a fiber is simultaneously ejected from the nozzle. In other words, even if the pressure is not given to the adhesive, a certain amount of the adhesive is ejected from the nozzle in conjunction with the ejection of the optical fiber. That is, the amount of the adhesive ejected from the nozzle is being changed according to the velocity of the optical fiber. Therefore, the air pressure must be controlled depending on the ejection speed of the optical fiber. Even if the air pressure is held constant, it does not follow that the amount of the adhesive is kept constant.

Thus, even if Keyworth and Ikushima are combined with Swiggett et al., Hisatsune, the same results as this invention will not be obtained.

For at least these reasons, the present invention patentably distinguishes over Swiggett et al., Hisatsune, Keyworth et al. and Ikushima.

**Claims 1, 3, 4, 7, 8 and 9 were rejected under 35 U.S.C. 103(a) as being obvious over Hisatsune in view of Swiggett.**

**Claims 2, 6, 10 and 11 were rejected under 35 U.S.C. 103(a) as being obvious over either one of Swiggett and Hisatsune, or Hisatsune and Swiggett, and further in view of Keyworth.**

**Claim 5 was rejected under 35 U.S.C. 103(a) as being obvious over either one of Swiggett and Hisatsune, or Hisatsune and Swiggett, and further in view of Hawkins (U.S. Patent No. 3,742,107).**

As discussed above, because at least Hisatsune is not analogous prior art, the rejection based on the combination including Hisatsune has not established a prima facie case of obviousness. Also, the Examiner's allegation is nothing but a typical example of an impermissible hindsight analysis.

Therefore, the present invention patentably distinguishes over Swiggett et al., Hisatsune, Keyworth et al. and Ikushima.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,  
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